

REMARKS

By this amendment, Applicants have amended claims 1 and 2 to more clearly define their invention, have amended claim 5 to be in independent form, have amended claim 9 to depend from claim 5, and have amended claims 11, 17 and 18 to be in proper Markush format. Applicants have canceled claims 23-28 without prejudice or disclaimer.

The Examiner has objected to the drawings under 37 CFR 1.83(a) as allegedly failing to show the holding elements for holding the heating elements. This objection is traversed.

Figures 1, 5, 9a and 12 all show holding elements for holding the heating elements. In Figures 1, 5 and 9a, studs 4 are shown to receive the ceramic heating elements and frictionally retaining the heating elements in the recesses 3. See, e.g. page 10, third and fifth paragraphs. Figure 12a shows projections 2a which can be used for lateral retention of the heating elements, as described in the paragraphs bridging pages 12-13 of Applicants' specification. Accordingly, the drawings show the holding elements, contrary to the Examiner's allegation. Therefore, corrected drawings are unnecessary.

In view of the foregoing amendment to claim 9, reconsideration and withdrawal of the objection to the under 37 CFR 1.75(c) are requested.

In view of the foregoing amendments to claims 11, 17 and 18, it is submitted that all of the claims now in the application comply with the requirements of 35 U.S.C. 112, second paragraph. Therefore, reconsideration and withdrawal of the rejections of claims 11, 17 and 18 under 35 U.S.C. 112, second paragraph, are requested.

Claims 1, 3, 4 and 8-11 stand rejected under 35 U.S.C. 102(b) as allegedly being anticipated by U.S. Patent No. 5,665,261 to Damsohn et al. Applicants traverse this rejection and request reconsideration thereof.

The rejected claims relate to a device for receiving ceramic heating elements (PTC elements, cold conductors, in a heating device). As shown, by way of example only in, e.g., Figures 1 and 2, the device of the present invention has an insulating frame 1 and at least one contact plate held in the insulating frame and on which can be placed the heating elements. According to one aspect of the present invention, the contact plate 2 is frictionally held in the frame 1 so that the contact place cannot be drawn out of the frame without damaging the frame. See, e.g., page 9, lines 14-17 of Applicants' specification.

In Damsohn et al., on the other hand, as can be most clearly seen in Figure 5 and as described at column 6, lines 16 et seq. of Damsohn et al., metal plates 5 and 6 enclose the PTC elements 15 and its sealing frame 7 between them. The surfaces of metal plates 5 and 6 are provided with a silicon-based adhesive corresponding to the shape of the sealing frame 7. Figure 5 shows the exploded representation of the constituent parts. As soon as the PTC elements 15 have been inserted into the openings 2 of the sealing frame, the second metal plate is positioned thereon and the parts are then pressed against one another at a suitable pressure. The Examiner refers to the disclosure at column 6, lines 55-63 of Damsohn et al. which indicates that this results "in a frictionally locking connection of the metal plates 5 and 6 via the sealing frame 7." However, Damsohn et al., the contact plate 5 or 6 is not held in the insulating frame 7. Rather, the insulating frame 7 is joined adhesively between the contact plates

5 and 6. Thus, neither contact plate 5 nor contact plate 6 of Damsohn et al., is frictionally held in frame 7. To the contrary, in Damsohn et al., the frame 7 is adhered between the contact plates 5 and 6. Accordingly, the Damsohn et al. patent does not anticipate the presently claimed invention.

Claims 13, 14, 16-19 and 21 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Damsohn et al., in view of U.S. Patent No. 4,835,370 to Van Bokestal. Applicants traverse this rejection and request reconsideration thereof.

As admitted by the Examiner, the Damsohn et al. patent does not teach a contact plate covered by a polymer ceramic or ceramic cover layer, as set forth in claim 13, or a contact plate having an insulating layer applied thereto by spraying or molding, as set forth in claim 14.

The Examiner alleges the Van Bokestal et al. patent discloses a PTC heating device having an insulating polymer ceramic 5 covering a contact plate 4. It is submitted the Examiner's allegation is in error. Element 5 of Van Bokestal et al. is a layer consisting of a silicone elastomer (see, column 2, line 52 of Van Bokestal et al.). The casing 6 is molded, for example, from a vulcanized silicon rubber which is filled with magnesium oxide and silicon dioxide; see, column 2, lines 48-50 of Van Bokestal et al. Thus, the Van Bokestal et al. patent does not disclose a contact plate covered by a polymer ceramic or ceramic cover layer. A polymer ceramic is a ceramic produced by condensation of organometallic compounds into merely inorganic materials by proper thermal treatment under a controlled atmosphere as described in the two publications, i.e., by Weinmann et al and An et al., describing polymer ceramics, also called precursor-derived ceramics (PDC), attached to the amendment filed March 29, 2005.

Thus, in addition to not remedying the basic deficiency noted above with respect to Damsohn et al., the Van Bokestal et al. patent does not disclose the subject matter set forth in claims 13, 14, 16-19 and 21.

As to claim 14, the Examiner alleges claim 14 to be a “product-by-process claim” and alleges that “the product itself does not depend on the process of making it.” However, the structure implied by the process steps must be considered when assessing the patentability of product-by-process claims over of the prior art. Manual of Patent Examining Procedure (MPEP), section 2113; *In re Garnero*, 412 F. 2d 276, 279, 162 USPQ 221, 223 (CCPA 1979).

Claim 14 requires that the insulating layer be applied by spraying or molding to the side of the contact plate remote from the reception side for the heating elements. The process step of spraying or molding implies a structure in which the insulating layer is adhered to the side of the contact plate. On the hand, according to Van Bokestal et al. the casing 6, together with a layer 5 on one side and the metal bodies 3 and 4 (contact electrodes), as well as the resistor bodies 1, 2, are separately manufactured as discrete parts. In order to manufacture the heating element as shown in Van Bokestal et al., the resistor bodies 1 and 2 are inserted between the metal bodies 3 and 4 and all parts are held together in a sandwich-like form and are shifted from the open end of the molded casting into the casting 6. Thus, the sandwiched-like structure produced by Van Bokestal et al. is different than the structure implied by the process step set forth in claim 14. Accordingly, claim 14 is patentable over the proposed combination of Damsohn et al. and Van Bokestal et al.

Claim 22 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Damsohn et al. in view of Van Bokestal et al. and further in view of U.S. Patent 4,334,141 to Roller et al. Applicants traverse this rejection and request reconsideration thereof.

The patent to Roller et al. discloses a combined electric heating and vessel and support plate for a beverage preparation device but does not remedy any of the basic deficiencies noted above with respect to Starck and Van Bokestal et al. Accordingly, claim 22 is patentable over the proposed combination of references at least for the reasons noted above.

In view of the foregoing amendments and remarks, favorable reconsideration and allowance of all of the claims now in the application are requested.

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Respectfully submitted,


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